Claims

[c1] What is claimed is:

> 1.An optimal power calibration (OPC) method for an optical disc of an optical system, the optical disc including a power calibration area which has a count area and a test area, the count area having a plurality of counting units, the test area having a plurality of test blocks corresponding to each of the counting units for printing test data, the method comprising: generating a plurality of first power levels by using an indicated power; selecting a plurality of second power levels from the first power levels; recording test data onto test blocks with the second power levels; reading the test blocks and generating data signals and first beta values; generating an estimated optimal power by a calculating algorithm; generating a plurality of third power levels by using the estimated optimal power;

recording test data onto test blocks with the third power levels; reading the test blocks and generating data signals and second beta values; generating an optimal power from the estimated optimal power, the first beta values and the second beta values.

2. The OPC method of claim 1 wherein the second power levels are lower than the indicated power.

3. The OPC method of claim 1 wherein the indicated power is stored in a lead-in area of the optical disc, the OPC method further comprising reading the indicated power from the lead-in area.

4. The OPC method of claim 1 wherein the indicated power is stored in a firmware database of an optical recorder, the OPC method further comprising reading the indicated power from the firmware database of the optical recorder.

5. The OPC method of claim 1 wherein the calculating algorithm is used for interpolating the second power levels.

[c6] 6. The OPC method of claim 1 wherein the calculating algorithm is used for extrapolating the second power levels.

[c2]

[c3]

[c4]

[c5]

	[c7]	7.The OPC method of claim 6 wherein the beta values are calculated by using amplitude information of data signals.
	[c8]	8. The OPC method of claim 1 further comprising adjusting the optimal power level and setting the adjusted power level as a new indicated power if the optimal power level is not preferred optimal power level.
	[c9]	9.The OPC method of claim 8 wherein the optimal power level is adjusted by decreasing the lowest power of the third power levels.
•	[c10]	10. The OPC method of claim 8 wherein the optimal power level is adjusted by increasing the highest power of the third power levels.
harf.	[c11]	11. The OPC method of claim 1 wherein the optimal power level is a power level for recording data onto a program area of the optical disc.
mil tank	[c12]	12. The OPC method of claim 1 wherein the optical disc is a CD-R disc.
dus and	[c13]	13.The OPC method of claim 1 wherein the optical disc is a DVD-R disc.
	[c14]	14. The OPC method of claim 1 wherein the optical disc is erasable.
	[c15]	15. The OPC method of claim 1 wherein the optical disc is a CD-RW disc.
	[c16]	16.The OPC method of claim 1 wherein the optical disc is a DVD-RW disc.
ann.	[c17]	17.The OPC method of claim 1 wherein the optical disc is a DVD+RW disc.